

AMENDMENTS TO THE CLAIMS

1. (Presently Amended) A method of making and screening an array of catalysts, said method comprising:

(a) combining a first polymerization precursor material, a second polymerization precursor material and a first catalyst in a first region on a substrate, by

(i) delivering the first catalyst to the first region on the substrate, and

(ii) delivering the first polymerization precursor material and the second polymerization precursor material to said first region on the substrate;

(b) combining a first polymerization precursor material, a second polymerization precursor material and a second catalyst in a second region on a substrate, by

(i) delivering the second catalyst to said second region on the substrate, and

(ii) delivering the first polymerization precursor material and the second polymerization precursor material to said second region on a substrate;

(c) reacting the first and second polymerization material in said first and second regions; and

(d) screening said first and second regions of said substrate for a measurable property or properties;

wherein step (a) occurs before step (b).

2. (Original) The method of claim 1, wherein first polymerization precursor material and said second polymerization precursor material react to form a polycarbonate; and

step (d) comprises screening first and second polycarbonate compositions in first and second regions.

3. (Original) The method of claim 1, wherein the first and second catalysts comprise one or more metal salts of differing stoichiometries or composition.

4. (Original) The method of claim 1, wherein the first and second catalysts comprise 3 metal salts of differing stoichiometries or composition.

5. (Original) The method of claim 1, wherein the first and second catalysts comprise 3 metal salts of differing stoichiometries or composition which are the result of three-way combinations of multiple ( $>3$ ) metal salts.

6. (Original) The method as in any one of claims 3 or 4, wherein the metal salts are alkali metal salts, alkaline earth metal salts, transition metal salts or mixtures thereof.

7. (Original) The method of claim 2, wherein the step of screening comprises measuring fluorescence emission.

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Presently Amended) The method of claim ~~8~~ 1, wherein ~~the first polymerization precursor material and the second polymerization precursor material are delivered before the catalyst~~ step (a) (ii) occurs before step (a) (i) and step (b) (ii) occurs before step (b) (i).

12. (Presently Amended) The method of claim ~~8~~ 1, wherein the ~~first polymerization precursor material and the second polymerization precursor material are delivered after the catalyst~~ step (a) (ii) occurs after step (a) (i) and step (b) (ii) occurs after step (b) (i).

13. (Presently Amended) The method of claim ~~8~~ 1, further comprising mixing of the first polymerization precursor material and the second polymerization precursor material prior to delivery.

14. (Presently Amended) The method of claim 8 1, wherein step (a) and step (b) further ~~comprising~~ comprise mixing the first polymerization precursor material and the respective catalyst prior to ~~being delivered~~ delivering the respective catalyst to the respective region on the substrate.

15. (Presently Amended) The method of claim 8 1, wherein step (a) and step (b) further ~~comprising~~ comprise mixing the second polymerization precursor material and the respective catalyst prior to ~~being delivered~~ delivering the respective catalysts to the respective regions on the substrate.

16. (Presently Amended) The method of claim 8 1, wherein step (a) and step (b) further ~~comprising~~ comprise delivering the first polymerization precursor material to the respective region of the substrate before the respective catalyst is delivered and then delivering the second polymerization precursor material.

17. (Original) The method of claim 2, wherein the first polymerization precursor material comprises a bisphenol and the second polymerization precursor material comprises a diaryl ester of carbonic acid.

18. (Original) The method of claim 17, wherein the bisphenol is bisphenol A and the second polymerization precursor material is diphenylcarbonate.

19. (Presently Amended) A method of making and screening an array of catalysts, said method comprising:

(a) combining a bisphenol compound, diaryl ester of carbonic acid and a first metal salt catalyst in a first region of a substrate, by

(i) delivering the first metal salt catalyst to the first region on the substrate,  
and

(ii) delivering a bisphenol compound and a diaryl ester of carbonic acid to said first region on the substrate;

(b) combining the bisphenol compound, the diaryl ester of carbonic acid and a second metal salt catalyst in a second region on a substrate, by

(i) delivering the second metal salt catalyst to said second region on the substrate, and

(ii) delivering the bisphenol compound and the diaryl ester of carbonic acid to said second region on a substrate;

(c) reacting ~~a~~ the bisphenol compound and ~~a~~ the diaryl ester of carbonic acid in said first and second regions; and

(d) screening said first and second regions of said substrate for a measurable property or properties;

wherein step (a) occurs before step (b).

20. (Original) The method of claim 19, wherein a bisphenol compound and a diaryl ester of carbonic acid react to form a polycarbonate; and

step (d) comprises screening first and second polycarbonate compositions in first and second regions.

21. (Original) The method of claim 19, wherein the first and second metal salt catalyst comprises one or more metal salts of differing stoichiometries or composition.

22. (Original) The method of claim 19, wherein the first and second metal salt catalyst comprises 3 metal salts of differing stoichiometries or composition.

23. (Original) The method of claim 19, wherein the first and second metal salt catalysts comprise all possible three-way combinations of 4 or more metal salts of differing stoichiometries or composition.

24. (Original) The method of claim 19, wherein the metal salt is an alkali metal salt, an alkaline earth metal salt, a transition metal salt or mixtures thereof.

25. (Original) The method of claim 20, wherein the step of screening comprises measuring fluorescence emission.

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Presently Amended) The method of claim ~~26~~ 19, wherein ~~the bisphenol compound and the diaryl ester of carbonic acid are delivered before the catalyst step (a) (ii) occurs before step (a) (i) and step (b) (ii) occurs before step (b) (i).~~

30. (Presently Amended) The method of claim ~~26~~ 19, wherein ~~the bisphenol compound and the diaryl ester of carbonic acid are delivered after the catalyst step (a) (ii) occurs after step (a) (i) and step (b) (ii) occurs after step (b) (i).~~

31. (Presently Amended) The method of claim ~~26~~ 19, further comprising mixing the bisphenol compound and the diaryl ester of carbonic acid prior to delivery.

32. (Presently Amended) The method of claim ~~26~~ 19, wherein ~~step (a) and step (b) further comprising~~ comprise mixing the bisphenol compound and the catalyst prior to ~~being delivered~~ delivering the respective catalyst to the respective region on the substrate.

33. (Presently Amended) The method of claim ~~26~~ 19, wherein ~~step (a) and step (b) further comprising~~ comprise mixing the diaryl ester of carbonic acid and the catalyst prior to ~~being delivered~~ delivering the respective catalyst to the respective region on the substrate.

34. (Presently Amended) The method of claim ~~26~~ 19, wherein ~~step (a) and step (b) further comprising~~ comprise delivering the bisphenol compound to the respective region of the substrate before the respective catalyst is delivered and then delivering the diaryl ester of carbonic acid.

35. (Presently Amended) The method of claim ~~26~~ 19, wherein ~~step (a) and step (b) further comprising~~ comprise delivering the diaryl ester of carbonic acid to the respective

region of the substrate before the respective catalyst is delivered and then delivering the bisphenol compound.

36-37 (Cancelled)

38. (Original) The method of claim 1, wherein the substrate forms a rigid support.

39. (Presently Amended) The method of claim ~~26~~ 19, wherein said bisphenol compound is bisphenol A and said diaryl ester of carbonic acid is diphenylcarbonate.

40. (Original) The method of claim 2, wherein the step of screening comprises measuring molecular weight.

41. (Original) The method of claim 20, wherein the step of screening comprises measuring molecular weight.

42. (Original) The method of claim 1, wherein the first and second catalysts further comprise an organic co-catalyst.

43. (Original) The method of claim 42, wherein said organic co-catalyst is tetramethyl ammonium hydroxide.

44. (Original) The method of claim 19, wherein the first and second metal salt catalysts further comprise an organic co-catalyst.

45. (Original) The method of claim 44, wherein said organic co-catalyst is tetramethyl ammonium hydroxide.